

CLAIMS AMENDMENT

1-60. (cancelled)

61. (currently amended): A macrolide polyketide or a glycosylated macrolide polyketide obtainable by a method comprising:

providing a modified 6-dEB synthase containing all modules of said synthase in the presence of a starter unit which is an acetyl or propionyl thioester and an extender unit which is a methylmalonyl thioester to obtain a macrolide 14 member polyketide with the carbon skeleton of 6-dEB and optionally effecting glycosylation of said macrolide polyketide

wherein said modified 6-dEB synthase comprises is functionally modified by at least one modification selected from the group consisting of:

- a) replacing the β -keto modifying (BKM) catalytic region in module 2 to contain, in addition to ketoreductase (KR) activity, dehydratase (DH) activity and optionally DH and enoylreductase (ER) activity;
- b) replacing the BKM region in module 3 with a BKM region which contains KR activity, optionally KR and DH activity and optionally KR, DH and ER activity;
- c) replacing the BKM region of module 5 with a BKM region which comprises, in addition to KR activity, DH activity and optionally DH and ER activity; [[and]] or
- d) replacing the BKM region in module 6 to contain a BKM region which comprises, in addition to KR activity, DH activity and optionally DH and ER activity.

62. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein at least 2 said modifications have been effected.

63. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 62 wherein at least 3 said modifications have been effected.

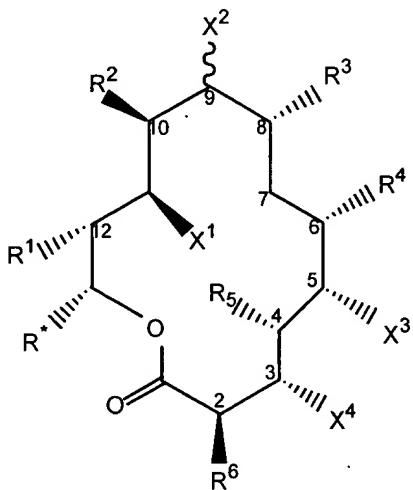
64. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 63 wherein at least 4 said modifications have been effected.

65. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein no more than 2 said modifications have been effected.

66. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein no more than 3 said modifications have been effected.

67. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 wherein no more than 4 said modifications have been effected.

68. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 61 which has the formula:



wherein R* is methyl or ethyl;

each of R¹-R⁶ is methyl;

X¹ is OH or H; and/or

X² is =O, OH or H; [[and/or]]

X³ is OH or H; [[and/or]]

[[X⁵]] X⁴ is OH or H; [[and/or]]

a pi bond is present at positions 10-11, 8-9, 4-5 and/or 2-3; and wherein at least one of the following restrictions characteristics is present:

X¹ is H;

X^2 is OH or H;

X^3 is H;

X^4 is H; [[and/or]] or

a pi bond is present at positions 10-11, 8-9, 4-5 and/or 2-3.

69. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein at least 2 of said restrictions is characteristics are present.

70. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 69 wherein at least 3 of said restrictions is characteristics are present.

71. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 70 wherein at least 4 of said restrictions is characteristics are present.

72. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein no more than 2 of said restrictions is characteristics are present.

73. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein no more than 3 of said restrictions is characteristics are present.

74. (currently amended): The macrolide polyketide or glycosylated macrolide polyketide of claim 68 wherein no more than 4 of said restrictions is characteristics are present.

75. (currently amended): The glycosylated macrolide polyketide of claim 68 wherein the glycosyl residue is of L-mycarose or L-cladinose at position 3 and D-desosamine at position 5.